## MISCELLANEOUS NOTES.

## No. I. Earth Tremors in Northern Siam.

Phya Rajadet, the Governor of Chiengrai, has informed me that recurring earth tremors are experienced in the district of Wieng Papao almost monthly. This has been going on for some years. The whole district of Wieng Papao is very hilly. In the province of Chiengrai are many hot springs; some of them so hot that an egg can be boiled in their water within five minutes.

It is recorded that the ancient city of Yonaka, with several hundred thousand inhabitants, was completely engulfed during a violent earthquake, or eruption, not a soul escaping. This earthquake or volcanic eruption occurred probably about the year A. D. 1008. This city was about 22 kilometres north-northwest of the district office of New Chiengsen. The site of this ancient city is now a lake called Muang Lom (The Fallen City), and sometimes known as Muang Nong (The Lake City).

Another terrible earthquake is recorded in history as having occurred at Chiengmai and the surrounding territory, including

Chiengsen, about A. D. 1545.

F. H. GILES.

Bangkok, July 26, 1931.

## No. II. Light Seen Over Oil-seep.

In the Muang Fang district, southwest of Chiengrai, about the spot where the oil seepage is, during the season of jungle fires, the people say that, almost annually, they see a column of bluishgreen light ascending to a great height from the ground. This column is not in the nature of a blaze.

F. H. GILES.

Bangkok, July 26, 1931.

## No. III. Migration of Jungle-fowl.

Between the middle of June and the end of July there has been a movement of jungle-fowl going on in Northern Siam, along the right bank of the Me Kong, from the Anglo-Siam frontier southwards to at least several kilometres south of Old Chiengsen. In the Chiengsen region the birds are apparently trying to cross the river eastwards, where it is about 700 yards across. In crossing, the birds fly up as high as they can go, and then attempt to glide across. A large number, however, fall in the river and are drowned. Last year at the same time a similar movement occurred along the river here.

About Me Sui, some four kilometres southwest of Chiengrai, the jungle-fowl are coming out into the open ground, in the vicinity of the district office. It is very unusual for these birds to come into the open in this way. The local people regard it as a portent of

evil omen.